

## **DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA**

### **SUPPLEMENTAL SPECIFICATION**

#### **Section 627—Mechanically Stabilized Embankment Retaining Wall- Contractor Design**

---

*Delete Subsection 627.2 and substitute the following:*

##### **627.2 Materials**

Meet the requirements of Subsection 626.2, “Materials” of the Specifications.

*Delete Subsection 627.3.03.B and substitute the following:*

##### **B. Wall Design**

Use the following design criteria for a Contractor designed wall:

1. Provide one of the following wall systems:  
ARES (Tensar Earth Technologies)  
Reinforced Earth Wall (The Reinforced Earth Company)  
Sine Wall MSE Panel Systems (Sine Wall)  
Stabilized Earth Wall (Vistawall Systems)  
Tricon Retained Soil Wall (Tricon Precast)
2. Design the MSE Wall according to the current AASHTO Standard Specifications for Highway Bridges including interims. (Mechanically Stabilized Earth Wall Design – Section 5.8)
3. Design the MSE wall to account for all live load, dead load and wind load from all traffic barrier, lights, overhead signs, sound barriers and other appurtenances located on top and adjacent to the wall. Design MSE walls to account for all external forces. Also, design abutment walls for all horizontal and vertical loads applied by the bridge.
4. Assume responsibility for all temporary shoring that may be necessary for wall construction. Design the shoring using sound engineering principles.
5. Use permanent concrete wall facing panels that are at least 7 in (175 mm) thick.
6. Provide a minimum length of soil reinforcement of 10 feet (3 m) or seven-tenths (0.7) of the wall height, whichever is greater.
7. Ensure that the special wall backfill extends a minimum of 12 in (300 mm) past the end of the soil reinforcement.
8. Use the Architectural treatment of facing panels as indicated on the Department’s drawings.
9. Provide internal walls to allow for future widening if shown on the wall envelope. Ensure the internal walls have galvanized wire or concrete facing. Ensure as a minimum that the facing of the internal walls extend to the back limit of the MSE Wall Backfill for the permanent wall.
10. Ensure the maximum panel area does not exceed 35 square feet (3.25 square meters).

11. Design the barrier for a 500 lbs. per linear foot (744 kilograms per linear meter) loading applied horizontally along the top of the barrier. The barrier shall be continuous or have a counterweight slab continuous over not less than four panels.
12. A Foundation Investigation Report may be available from the Geotechnical Engineering Bureau of the Department. The information contained in this report may be used by the Contractor to assist in evaluating existing conditions for design as well as construction. However, the accuracy of the information is not guaranteed and no requests for additional monies or time extensions will be considered as a result of the Contractor relying on the information in this report.
13. Ensure the following requirements are met:
  - The gutterline grade on the proposed top of wall submitted matches the gutter elevations required by the plans.
  - The top of coping is at or above the top of coping shown on the envelope.
  - The leveling pad is at or below the elevation shown on the wall envelope.
  - Any changes in wall pay quantities due to changes in the wall envelope are noted in the contractor's plans
  - All changes in quantities due to the proposed walls being outside the wall envelope (step locations, ending wall at full panel, etc.) are shown as separate quantities.
14. Ensure the minimum embedment of the wall (top of leveling pad) is at least 2 feet (600 mm). If the soil slopes away from the bottom of the wall, lower the bottom of the wall to provide a minimum horizontal distance of 10 ft (3 m) to the slope. [i.e. a 2:1 slope in front of the wall requires 5 ft (1.5 m) of embedment; a 4:1 slope in front of the wall requires 2.5 ft (750 mm) of embedment]
15. If the Department's review of the submitted plans and calculations results in more than two submittals to the Department by the Contractor, the Contractor will be assessed for all reviews in excess of two submittals. The assessment for these additional reviews will be at the rate of \$60.00 per hour of engineering time expended.

*Delete Subsection 627.3.04 and substitute the following:*

#### **627.3.04 Fabrication**

Meet the requirements of Subsection 626.3.04 of the Specifications.

*Delete Subsection 627.3.05 and substitute the following:*

#### **627.3.05 Construction**

Meet the requirements of Subsection 626.3.05 of the Specifications.